Serial No. 10/735,744 July 11, 2005 Reply to the Office Action dated April 15, 2005 Page 2 of 8

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>LISTING OF CLAIMS:</u>

Claim 1 (canceled).

Claim 2 (currently amended): A ladder filter according to Claim 1, wherein A ladder filter comprising series arm resonators and parallel arm resonators; wherein the series arm resonators and the parallel arm resonators are alternately connected to each other;

each of the series arm resonators is a first series arm resonator connected in parallel to an inductor or a second series arm resonator not connected to an inductor; a relationship of fsr1 < fsr2 is satisfied, where fsr1 represents the resonant frequency of the first series arm resonator and fsr2 represents the resonant frequency of the second series arm resonator; and

a relationship of fsr1 < fpa < fsr2 is satisfied, where fpa represents the antiresonant frequency of the parallel arm resonators.

Claim 3 (currently amended): A ladder filter according to Claim 1, wherein A ladder filter comprising series arm resonators and parallel arm resonators; wherein the series arm resonators and the parallel arm resonators are alternately connected to each other;

each of the series arm resonators is a first series arm resonator connected in parallel to an inductor or a second series arm resonator not connected to an inductor; a relationship of fsr1 < fsr2 is satisfied, where fsr1 represents the resonant frequency of the first series arm resonator and fsr2 represents the resonant frequency of the second series arm resonator; and

Serial No. 10/735,744 July 11, 2005 Reply to the Office Action dated April 15, 2005 Page 3 of 8

a relationship of fsa2 < fsa1' is satisfied, where fsa1' represents the anti-resonant frequency of the first series arm resonator, the anti-resonant frequency of the first series arm resonator is shifted by the operation of the inductor, which is connected in parallel with the first series arm resonator, and fsa2 represents the anti-resonant frequency of the second series arm resonator.

Claim 4 (currently amended): A ladder filter according to Claim 1, wherein A ladder filter comprising series arm resonators and parallel arm resonators; wherein the series arm resonators and the parallel arm resonators are alternately connected to each other:

each of the series arm resonators is a first series arm resonator connected in parallel to an inductor or a second series arm resonator not connected to an inductor; a relationship of fsr1 < fsr2 is satisfied, where fsr1 represents the resonant frequency of the first series arm resonator and fsr2 represents the resonant frequency of the second series arm resonator; and

a relationship of fpa \times 0.995 < (fsr1 + fsr2)/2 < fpa \times 1.01 is satisfied, where fpa represents the anti-resonant frequency of the parallel resonators.

Claim 5 (currently amended): A ladder filter according to Claim 42, wherein the resonant frequency pitch of the first series arm resonator is different from the resonant frequency pitch of the second series arm resonator.

Claim 6 (currently amended): A ladder filter according to Claim 42, further comprising a package, wherein the inductor connected in parallel to the first series arm resonator is arranged in the package.

Claim 7 (currently amended): A ladder filter according to Claim 42, wherein the each resonator is a one-terminal pair surface acoustic wave resonator including a

Serial No. 10/735,744 July 11, 2005 Reply to the Office Action dated April 15, 2005 Page 4 of 8

piezoelectric substrate and a plurality of interdigital electrodes transducers arranged on the piezoelectric substrate.

Claim 8 (currently amended): A ladder filter according to Claim 42, wherein the each resonator is a piezoelectric thin-film resonator including a substrate provided with one of an opening and a recess, and a vibrating portion defined by a piezoelectric thin film, including at least one layer and arranged above the opening or the recess, that is sandwiched by at least a pair of electrodes.

Claim 9 (currently amended): A branching filter comprising the ladder filter as set forth in Claim 42.

Claim 10 (currently amended): A communication apparatus including the ladder filter as set forth in Claim 42.

Claim 11 (original): A communication apparatus including the branching filter as set forth in Claim 9.

Claim 12 (new): A ladder filter according to Claim 3, wherein the pitch of the first series arm resonator is different from the pitch of the second series arm resonator.

Claim 13 (new): A ladder filter according to Claim 3, further comprising a package, wherein the inductor connected in parallel to the first series arm resonator is arranged in the package.

Claim 14 (new): A ladder filter according to Claim 3, wherein each resonator is a one-terminal pair surface acoustic wave resonator including a piezoelectric substrate and a plurality of interdigital electrodes arranged on the piezoelectric substrate.

Serial No. 10/735,744 July 11, 2005 Reply to the Office Action dated April 15, 2005 Page 5 of 8

Claim 15 (new): A ladder filter according to Claim 3, wherein each resonator is a piezoelectric thin-film resonator including a substrate provided with one of an opening and a recess, and a vibrating portion defined by a piezoelectric thin film, including at least one layer and arranged above the opening or the recess, that is sandwiched by at least a pair of electrodes.

Claim 16 (new): A branching filter comprising the ladder filter as set forth in Claim 3.

Claim 17 (new): A communication apparatus including the ladder filter as set forth in Claim 3.

Claim 18 (new): A communication apparatus including the branching filter as set forth in Claim 16.

Claim 19 (new): A ladder filter according to Claim 4, wherein the pitch of the first series arm resonator is different from the pitch of the second series arm resonator.

Claim 20 (new): A ladder filter according to Claim 4, further comprising a package, wherein the inductor connected in parallel to the first series arm resonator is arranged in the package.

Claim 21 (new): A ladder filter according to Claim 4, wherein each resonator is a one-terminal pair surface acoustic wave resonator including a piezoelectric substrate and a plurality of interdigital electrodes arranged on the piezoelectric substrate.

Serial No. 10/735,744 July 11, 2005 Reply to the Office Action dated April 15, 2005 Page 6 of 8

Claim 22 (new): A ladder filter according to Claim 4, wherein each resonator is a plezoelectric thin-film resonator including a substrate provided with one of an opening and a recess, and a vibrating portion defined by a plezoelectric thin film, including at least one layer and arranged above the opening or the recess, that is sandwiched by at least a pair of electrodes.

Claim 23 (new): A branching filter comprising the ladder filter as set forth in Claim 4.

Claim 24 (new): A communication apparatus including the ladder filter as set forth in Claim 4.

Claim 25 (new): A communication apparatus including the branching filter as set forth in Claim 23.